

DISTRIBUTION OF LITTLE-KNOWN MOLLUSCA
FROM POLYNESIA AND AUSTRALIA,
WITH THEIR SYNONYMS.

BY JOHN BRAZIER, F.L.S., C.M.Z.S.

1. *EULIMA HARGRAVESI*, Brazier.

Eulima porcellana, H. Adams (*non* A. Adams), Proc. Zool. Soc. London, 1872, p. 15, pl. III. fig. 29.

Hab.—New Hebrides (*W. H. Hargraves*); Whale Island, Aneiteum, New Hebrides, in beach débris (*J. Brazier*, August, 1865).

Mr. A. Adams in Proc. Zool. Soc. London, p. 276, No. 3, 1851, described a *Eulima* under the specific name of *porcellana*, and figured it in his Monograph of the genus in Sowerby's Thesaurus Conchyliorum, Vol. iii. p. 797, pl. CLXVIII. fig. 25. Mr. G. W. Tryon in his Manual of Conchology, Vol. vii., on *Eulimidae*, 1886, appears to have overlooked the species described by H. Adams; the species is quite distinct as regards size and sculpture; name changed as above.

2. *CHLOROSTOMA (OMPHALIUS) PFEFFERI*, Dohrn.

Omphalius Pfefferi, Dohrn, Malakozoologische Blätter, p. 56, No. 2, 1864.

Chlorostoma Pfeifferi, Pilsbry (*non* Philippi), Tryon's Manual of Conchology, Vol. xi. 1889, p. 189, pl. LXI. figs. 28, 29.

Chlorostoma Dohrni, Pilsbry, l.c. p. 469.

Hab.—New Hebrides (*H. Dohrn*); Anelecauhat Harbour, Aneiteum, New Hebrides, found on rocks and under stones at low water (*Brazier*, 1865); Aneiteum (*Captain Braithwaite*).

I do not see that there is any occasion for Mr. Pilsbry to change the specific name to *Dohrni*, when Dohrn spells the name *Pfefferi* and Pilsbry *Pfeifferi*. Dr. Philippi described a *Trochus Pfeifferi* from Japan. With the above species I also found *Monodonta*

(*Diloma*) *constellata*, Souverbie, but of a much darker colour than the types from New Caledonia.

3. PLECOTREMA CONCINNA, H. and A. Adams.

Plecotrema concinna, H. and A. Adams, Proc. Zool. Soc. London, p. 122, No. 9, 1853; Genera of Recent Mollusca, Vol. ii. p. 241; Pfeiffer in Malakozoologische Blätter, p. 150, No. 97, 1854; Monographia Auriculacearum Viventium, p. 101, No. 2, 1856; Catalogue of Auriculidæ in the British Museum, p. 76, No. 2, 1857; Paetel, Catalog der Conchylien Sammlung, p. 114, 1873; Pfeiffer, Monographia Pneumonoporum and Auriculaceorum, p. 343, No. 2, 1876.

Hab.— — ? (*Mus. Cuming*, 1853); Australia (*Pfeiffer*, 1854); Moreton Bay, Australia (*Pfeiffer and British Museum*, 1856-57); Moreton Island, near the Pilot Station, and Stradbroke Island, Moreton Bay, Queensland, March and December, 1862; Tambourine Bay, Lane Cove River, May 24, 1865; Double Bay, east side, Feb. 8, 1879; Bantry and Hunter's Bays, Middle Harbour, Port Jackson, June 20, Sept. 26, 1886 (*Brazier*).

Specimens of this species collected by me in Queensland in 1862 were sent to Mr. Henry Adams in 1869 and duly named *Plecotrema concinna*, H. and A. Ad. The four specimens collected at Tambourine Bay, Lane Cove River, in May, 1865, were sent to Mr. Angas in 1866; it appears he lost them and never recorded the species in his Lists of the Marine Mollusca of Port Jackson.

In 1879 with Mrs. Brazier I collected 34 specimens at Double Bay, below the residence of the late Hon. S. D. Gordon; six were sent to the British Museum and compared with the types and named by Mr. E. A. Smith *Plecotrema concinna*, H. and A. Ad.

There is another species of *Plecotrema* named *bicolor*, Pfr., said to have been found in Port Jackson by the late Mr. F. Strange on the authority of Cuming.

4. LAIMODONTA CONICA, Pease.

Laimodonta conica, Pease, Proc. Zool. Soc. p. 242, 1862, American Journal of Conchology, Vol. iv. p. 101, pl. XII. fig. 15, 1868.

Laemodonta conica, E. v. Martens and Langkavel, Donum Bismarckianum, Eine Sammlung von Südsee-Conchylien, p. 57, pl. III. fig. 13, 1871.

Laimodonta conica, Schmeltz in Museum Godeffroy, Catalog V. p. 87, 1874.

Melampus conicus (Laimodonta), Pfeiffer in Monographia Pneumonopomorum and Auriculaceorum, p. 319, No. 85, 1876.

Hab.—Central Pacific and Paumotus Islands (*W. H. Pease*); Vavau, Friendly Islands, found in shaded places in the crevices of coral above high water, specimens large, July 14, 1865; Great Sirius Cove or Mossman's Bay, Port Jackson, found in clusters of rock-oysters, *Ostrea cucullata*, Born, December 24, 1865; No. VI. or Eclipse Island, Claremont Group, 9 miles east of Cape Sidmouth, North Queensland, December, 1871 (*Brazier*).

Specimens of this species from the above localities were submitted to Mr. W. H. Pease in October, 1871, and duly named *Laimodonta conica*, Ps.; and since that date others were sent to the British Museum in 1879 and named from actual specimens, and not from figures or descriptions. Since December, 1865, I have never found the species in any part of Port Jackson. At one time *Strombus luhuanus*, Linné, was found on a sandy mud-flat in vast numbers at low water at the Bottle and Glass rocks, Vacluse Bay, Port Jackson; the species appears to have disappeared from the Port since May, 1865; dead specimens have been found on the north coast near the Richmond River.

5. NERITINA (NERITILLA) RUBIDA, Pease.

Neritina rubida, Pease, American Journal of Conchology, Vol. iii. p. 285, pl. XXIV. fig. 5, 1867; E. v. Martens and Langkavel, Donum Bismarckianum, Eine Sammlung von Südsee-Conchylien, p. 46, pl. II. fig. 13, 1871.

Neritina (Neritilla) rubida, Tryon, Manual of Conchology, Vol. x. p. 54, pl. XVII. fig. 84, pl. XVIII, fig. 85, 1888.

Neritina apea, Garrett, MS.

Hab.—Tahiti (*Garrett and Pease*); Upolu (*Gräffe*); Pango-Pango or Pago-Pago, Funga-loa Harbour, Tutuila, Samoa or

Navigators' Islands, found in the crevices of basalt stones above high-water mark enclosing a field of taro, *Caladium esculentum* (*J. Brazier*, July 1, 1865).

6. CLEMENTIA STRANGEI, Deshayes.

Clementia Strangei, Deshayes, Proc. Zool. Soc. London, p. 17, No. 1, 1853.

Clementia Strangei = *papyracea*, Gray; E. A. Smith, Voyage of H.M.S. Challenger, Zoology, Vol. xiii. p. 154, 1885.

Hab.—Moreton Bay, Queensland (*F. Strange*); Port Darwin, Northern Territory (*W. T. Bednall*); Mud Bay, Cape York, North Queensland, found thrown up on the beach (*Brazier, Chevert Expedition*); Torres Straits, in 3 to 11 fathoms (*H.M.S. Challenger*); off Cockatoo Island, Port Jackson, New South Wales, 3 to 4 fathoms, mud bottom, with *Myochama Strangei*, A. Adams, on *Circe scripta*, Linné (*Brazier*, 1864).

Clementia Strangei is transversely and regularly plicated with somewhat strong ridges. *Clementia Moretoniensis*, Desh., = *Clementia papyracea*, Gray, has the surface of the valves widely concentrically striated and faintly plicated; the latter species is also found off Cockatoo Island, Mossman's Bay, Lane Cove River, and Middle Harbour, Port Jackson, living in mud.

7. MYLITTA TASMANICA, Tenison-Woods.

Pythina tasmanica, Tenison-Woods, Proc. Royal Soc. Tasmania, p. 162, 1875; Tate, Trans. Roy. Soc. South Australia, Vol. ix. p. 98, pl. v. fig. 12, 1887.

Mylitta Deshayesii, E. A. Smith, Annals and Mag. Nat. Hist. p. 229, 1891.

Mylitta tasmanica, Tate, Trans. Roy. Soc. South Australia, Vol. xv. p. 135, 1892.

Hab.—King Island, Bass Straits (*Tenison-Woods*); Fowler and Streaky Bays, St. Vincent Gulf, South Australia (*Professor Tate*); Ball's Head, Port Jackson, New South Wales, 18 fathoms, found in sandy mud, broken shells, May, 1864 (*J. Brazier*); Green Point, Watson's Bay, found in shell sand inside an old bottle, 1893 (*Mr. A. U. Henn*).

This species I have compared with actual specimens from Tasmania, and not descriptions and figures only, and they agree in every detail with the Port Jackson shells. The other species, *Mytilus Deshayesii*, D'Orb. and Recluz, has been found in South Australia and Tasmania, and I have received it from Cape Riche, King George's Sound ; found in shell sand.

8. MODIOLA ARBORESCENS, Chemnitz.

- Mytilus arborescens*, Chemnitz, Conch. Cab. Vol. xi. p. 251, pl. 198, figs. 2016, 2017, 1795.
- Modiola picta*, Lamarck, Anim. sans Vert. Vol. vi. part 1, p. 112, No. 8, 1819 ; Encyclopédie, pl. CCXXI. fig. 2.
- Mytilus arborescens*, Dillwyn, Catalogue of Recent Shells, Vol. i. p. 306, No. 14, 1817.
- Modiola picta*, Deshayes ; Lamarck, Anim. sans Vert. Vol. vii. p. 21, No. 8, 1836.
- Mytilus pictus*, Deshayes, Encycl. Méth. Vers. Vol. ii. p. 569, No. 34.
- Modiola picta*, Sowerby, Genera of Recent and Fossil Shells, Vol. ii. pl. xcix. fig. 1.
- Modiola arborescens*, Hanley, Catalogue of Recent Bivalve Shells, p. 237, 1843.
- Modiola arborescens*, Jay, Catalogue of Shells, 4th edition, p. 76, No. 2149, 1850.
- Modiola arborescens*, Hanley ; Wood, Index Testaceologicus, 2nd edition, No. 5, p. 67, species 13, pl. XII. fig. 13, 1855.
- Modiola arborescens*, Reeve, Conch. Icon. Vol. x. pl. vi. fig. 30, 1857.
- Perna arborescens*, H. and A. Adams, Genera of Recent Mollusca, Vol. ii. part 32, p. 516, 1857.
- Modiola arborescens*, Tenison-Woods, Census of the Marine Shells of Tasmania, Proc. Royal Soc. Tasmania, p. 55, 1877.
- Modiola arborescens*, Clessin, Conch. Cab. 2nd edition, Kuster, part 8, p. 100, pl. xxix. fig. 10, 1887.
- Modiola arborescens*, Tate, Trans. Royal Soc. South Australia, Vol. xiv. p. 268, 1890-91.

Hab.—Coast of St. Domingo (*Chemnitz*); China (*Humphreys*); Atlantic Ocean (?) (*Lamarck*); Long Bay, Tasmania (*Rev. H. D. Atkinson*); between Ball's Head and Goat Island, Port Jackson, N.S.W., 18 fathoms, found in company with *Modiola glaberrima*, Dunker; off Sydney Heads, 45 fathoms (*J. Brazier*, May, 1864, June, 1874); one valve dredged off Troubridge by Mr. E. H. Mathews; several living specimens and detached valves dredged at 14 to 17 fathoms in Yankalilla Bay, South Australia, by Dr. Verco (*Professor R. Tate*).

Previous writers have recorded this very handsome species as coming from the West Indies and the Atlantic and China. The late Rev. J. E. Tenison-Woods was the first to record it from Tasmania. I have specimens dredged by the Rev. H. D. Atkinson that measure 2 inches in length; our Port Jackson examples from Ball's Head are a little longer; younger specimens have been dredged in various parts of the harbour and off Sydney Heads, 45 fathoms; the species is very rare.

Deshayes was the first to misquote Chemnitz's work in Lamarck; he there states that *Mytilus arborescens*, Chem., is figured in Vol. ii. of the Conchylien-Cabinet. Hanley does the same in his Catalogue of Recent Bivalves, 1843; Jay also in his Catalogue, 1850; Reeve the same in the Conch. Icon., 1857; Tenison-Woods in his Census of the Tasmanian Marine Shells-1877; Professor Tate in Proc. Royal Soc. South Australia, 1890, 91. Hanley in Woods' Index Test., quotes the correct Volume xi. of the Conch. Cab., and gives Chemnitz's locality, St. Domingo; the species might have its home in the West Indies as well as in Australia. My friend Mr. E. A. Smith records *Lima multicostata*, Sowerby, in the Report of the Lamellibranchiata, Zoology of H.M.S. Challenger, Vol. xiii. p. 288, as having been dredged off Bermuda in 1075 fathoms. This is a species common to Port Jackson and the east coast of Australia and off Tongataboo in 18 fathoms.